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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WALLACE, SCOTT A

ART UNIT	PAPER NUMBER
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2671

14

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,170

Applicant(s)

DAN MARTIN SCOTT

Examiner

Scott Wallace

Art Unit

2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7,9 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7,9 and 17-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Backman et al., U.S. Patent No. 5,902,347.

3. As per claim 9, Backman et al discloses a system that enables the georeferencing of a digital raster map (column 2 lines 9-11 and 18-23), comprising: a processing platform for executing code capable of georeferencing a digital raster map (column 2 lines 9-11 and 18-23) by associating points on the digital raster map with known reference points in the digital raster map (column 2 lines 17-27, changing points of interest is associating points with points already there); and a storage platform comprising non-cache volatile storage for storing at least the digital raster map (column 2 lines 27-28), the storage platform being coupled to the processing platform (column 2 lines 27-28).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Backman et al., U.S.

Patent No. 5,902,347 in view of Saylor et al., U.S. Patent No. 5,487,139.

6. As per claim 7, Backman et al discloses a system for georeferencing of a digital raster map, comprising: a processing platform for executing code capable of georeferencing a digital raster map (column 2 lines 9-11 and 18-23); and a storage platform comprising cache memory for storing at least the digital raster map, the storage platform being coupled to the processing platform (column 8 lines 3-6). However, Backman et al does not disclose associating points on the digital raster map with corresponding points on a previously-georeferenced vector map. This is disclosed in Saylor in the abstract and column 2 lines 25-48. The vector map is georeferenced before the comparing it to the raster map therefore it is done previously. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a previously georeferenced map because It would make it easier to georeference a new map if you had another one that is georeferenced already because all you have to do is transfer points.

7. Claims 17, 18 and 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saylor et al in view of DeLorme et al., U.S. Patent No. 5,848,373.

8. As per claim 17, Saylor et al discloses an apparatus that is capable of georeferencing a raster map, by: means for providing for display of a first map in a first area of a display (column 2 lines 25-60); means for providing for display of a second map inn a second area of the display (column 2 lines 25-60) the first map being a digital raster map (column 5 lines 15-40), and the second map being a previously

georeferenced map (column 5 lines 15-40), the first and second maps covering substantially the same geographic area when they are displayed (column 2 lines 25-60); means for receiving an entry identifying a first point pair, one point being on each map (column 2 lines 35-48); means for receiving an entry identifying a second point pair, one point being on each map (column 2 lines 35-48), the corresponding points of the points of the point pairs having approximately the same geographic location on each map (column 2 lines 35-48); means for assigning to the points on the first map a longitude coordinate and a latitude coordinate which is identical to the longitude coordinate and latitude coordinate of their corresponding points on the second map (column 5 lines 15-40); and means for computing a georeferencing function based on the pixel coordinates of the points of the first point pair on the first map and the geographic coordinates of the points of the second point pair on the second map (column 5 lines 15-40). However, Saylor et al does not disclose displaying a second map in a display area that is separate from the first area of the display. This is disclosed in DeLorme et al in fig 6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to display the maps in different areas because this would allow an easier way to compare the maps if they are side by side.

9. As per claim 18, Saylor et al discloses wherein the points of the point pairs comprise marks on the first map at respective locations and marks on the second map at corresponding locations (column 2 lines 25-60).

10. As per claim 23, Saylor et al. discloses a system for georeferencing a digital raster map, comprising: a processing platform for executing code capable of georeferencing a digital raster map (column 5 lines 15-29); and a storage platform coupled to the processing platform for storing at least a digital raster map (column 2 lines 49-60), facilities for providing for display a first map in a first area of a display, (column 2 lines 25-60), facilities for providing for display of a second map in a second area of the display (column 2 lines 25-60), the first map being a digital raster map, and the second map being a previously georeferenced map (column 5 lines 15-40), the first and second maps covering substantially the same geographic area when they are displayed (column 2 lines 25-60); facilities for receiving an entry identifying a first point pair, one point being on each map; facilities for receiving an entry identifying a second point pair, one point being on each map (column 2 lines 35-48), the corresponding points of the

point pairs having approximately the same geographic location on each map (column 2 lines 25-60); facilities for assigning to the points on the first map a longitude coordinate and a latitude coordinate which is identical to the longitude coordinate and latitude coordinate of their corresponding points on the second map (column 5 lines 15-40); and facilities for computing a georeferencing function based on the pixel coordinates of the points of the first point pair on the first map and the geographic coordinates of the points of the second point pair on the second map (column 5 lines 15-40). However, Saylor et al does not disclose displaying a second map in a display area that is separate from the first area of the display. This is disclosed in DeLorme et al in fig 6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to display the maps in different areas because this would allow an easier way to compare the maps if they are side by side.

11. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saylor et al. in view of DeLorme et al in further in view of Accuracy of Mapping Products.

12. As per claim 19, Saylor et al discloses more than two point pairs are identified and are used to compute the georeferencing function pursuant to a transformation technique (column 2 lines 25-45). However Saylor et al does not disclose further comprises means for executing a validation check of the georeferencing function pursuant to a standard deviation technique. This is disclosed Accuracy of Mapping Products in section 4.2 study design. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the standard deviation technique to as a validation check with the system of Saylor because this using standard deviation was a well known and efficient way of computing deviation errors.

13. As per claim 20, wherein the means for executing a validation check is further capable of rejecting a point pair when the point pair deviates a predetermined amount from a predetermined standard error. This would have been obvious to one of ordinary skill in the art at the time the invention

was made because standard deviation is a well known technique when plotting points and points that do not fall within the standard deviation can be discarded.

14. As per claim 21, Saylor discloses wherein at least four points are identified and are used to compute the georeferencing function (column 5 lines 15-30). However, Saylor does not specifically disclose at least four points used for a general linear transformation. This would have been obvious to one of ordinary skill in the art at the time the invention was made because since there are two maps and it takes a starting point and a ending point for linear transformation, therefore it would take four points in this case, two on each map.

15. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saylor et al in view of DeLorme et al in further in view of Kuo, U.S. Patent No. 5,596,494.

16. As per claim 22, Saylor discloses wherein at least three points are identified and are used to compute the georeferencing function (column 5 lines 15-30). However, Saylor does not specifically disclose using at least points pursuant to a general rotational linear transformation. This is disclosed in Kuo in column 16 lines 25-50. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use three points for rotational transformation in Saylor because you need at least three points for rotation. Two points for a straight line and a third to rotate to a third point.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Scott Wallace** whose telephone number is **703-605-5163**.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,
Mark Zimmerman, can be reached at 703-305-9798.

Any response to this action should be mailed to:


Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA,
Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be
directed to the Technology Center 2600 Customer Service Office whose telephone number is
(703) 306-0377.


MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600